Dynamix DW 2626

An Easy to Use PBX Gateway

User Manual

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Introduction

DW 2626 - An Easy to Use PBX Gateway

DW 2626 is a plug and play PBX gateway for SOHO and small office user which provides 2 PSTN lines, 6 Extension and SIP Calls together. It can work stand-along without any network connection just power on and use it. Also it becomes a small and simple IP-PBX when you enable the SIP service.

With enabling built-in auto attendant, DW 2626 can guide the caller from both VOIP and PSTN to reach the extension automatically. Or the incoming call can be routed to the predefined operation when disable the auto attendant service.

For emergency call (e.g. 911), DW 2626 can be configured to route through PSTN instead of VOIP to meet different country's legal requirements. When the power is lost or DW 2626 is malfunction, the bypass feature will ensure the PSTN lines can still be reached.

Physical Interface:

Ethernet port (RJ-45, 10/100 base-T)

1-WAN port, for connect to router, ADSL modem (ATU-R), or switch hub directly.

4-LAN port, for PC or other network devices connecting. Telephony port (RJ-11)

2-FXO Ports, to connect with PSTN Line

6-FXS ports, as PABX Extension Line to connect with analog phone Reset button

(Factory Default) AC power Jack Status indicated LED

Indicates Ethernet, FXO, FXS, and SIP system status

Features:

Support Stand-Along Working without Network Connection Ready to Run Default Settings

SIP RFC 3261 Compliance
Audio Codec: G.711, G.723.1, G.729A
In-band and out of band DTMF relay
Support SIP Register and Calling
Support Backup SIP Proxy Server
G.168 Echo Cancelation
T.38 Fax Relay
DTMF/FSK Caller ID Detection and Generation
Intelligent Call Routing
Support Backup Route to PSTN when VOIP or Network is failed
Support Emergency Call Through PSTN
Provides Configurable Auto Attendant Service
Support Direct Route to Operator
Support Operator Hunting Based on Priority
Support Operator Simultaneously Ringing
Customizable Auto Attendant Greeting
Call Transfer
Call Hold
Call Forward

Environmental

Operating Temp. & Humidity
Temp.: 0°C~45°C (32°F~113°F)
Humidity: 10%~85% relative humidity, non-condensing AC Power
Adaptor:
INPUT: AC100V-240V, 50/60Hz
OUTPUT: DC 12V, 3.0A

Default IP Address

WAN IP : 10.1.1.3
LAN IP : 192.168.123.123

Ready To Run Default Settings:

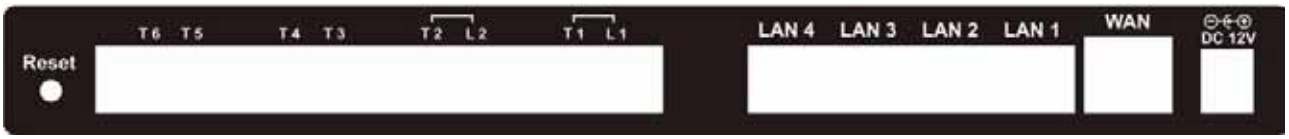
T1: 21* T2: 22* T3: 23 *default operator
T4: 24 T5: 25 T6: 26
All outgoing calls are route to PSTN automatically All incoming call is answered by Auto Attendant Press 9 for operator and # for end of dialing

Appearance

1. Front Panel: LED Indicators

LED	Description
Power	When the power adapter is connected, the LED will light up green.
Ready	The LED will light up green after system initialized.
Proxy	When the gateway is registered successfully to a Proxy, this LED will light up green.
WAN	This LED will light up green when the gateway's WAN port is physically connected to the public internet. When data is transmitted through this port, it will flash green. The default IP of WAN port is 10.1.1.3.
LAN 1~LAN4	The respective LED will light up green when the relative LAN port is physically connected to a local network. When data is transmitted through this port, it will flash green. The default IP of LAN port is 192.168.123.123.
L1	The status LED for FXO port 1, this will light up amber orange when the port is in used. It will flash amber orange when there is no connection with PSTN.
T1	The status LED for FXS port 1, this will light up amber orange when the connected phone's handset is off-hook, or when the connected phone is engaged in a conversation. It will flash amber orange when there is an incoming call.
L2	The status LED for FXO port 2, this will light up amber orange when the port is in used. It will flash amber orange when there is no connection with PSTN.
T2~T6	The status LED for FXS port 2~6, the respective LED will light up amber orange when the connected phone's handset is off-hook, or when the connected phone is engaged in a conversation. It will flash amber orange when there is an incoming call.

2. Rear Panel: LED Indicators



Item	Description
Reset	Press and hold over 5 seconds to reload factory default setting, this will erase all the settings configured on the gateway.
T6~T2	The RJ-11 FXS port 6~2, connects analog phone sets.
L2	The RJ-11 FXO port 2, connects PSTN line*
T1	The RJ-11 FXS port 1, connects analog phone sets.*
L1	The RJ-11 FXO port 1, connects PSTN line*
LAN 4~1	10/100 Base-T RJ-45 socket for LAN port 4~1, connect to local area network.
WAN	10/100 Base-T RJ-45 socket for WAN port, connects to wide area network.
DC 12V	The power socket, input AC 100V~120V; output DC12V.

* L1/T1 and L2/T2 is a bypass pair. When power is lost or DW 2626 is malfunction, L1's PSTN will directly bypass to T1 and L2 will bypass to T2.

Environment Setup and IP Connection

Please make sure that the network interface of your computer is working fine and the cross over line (RJ-45) is connected to the computer correctly.

The DW2626 by default uses DHCP for its LAN port and assigns IP addresses to clients connected to it, please make sure that your PC or Notebook's network configuration is set to DHCP.

Configuration

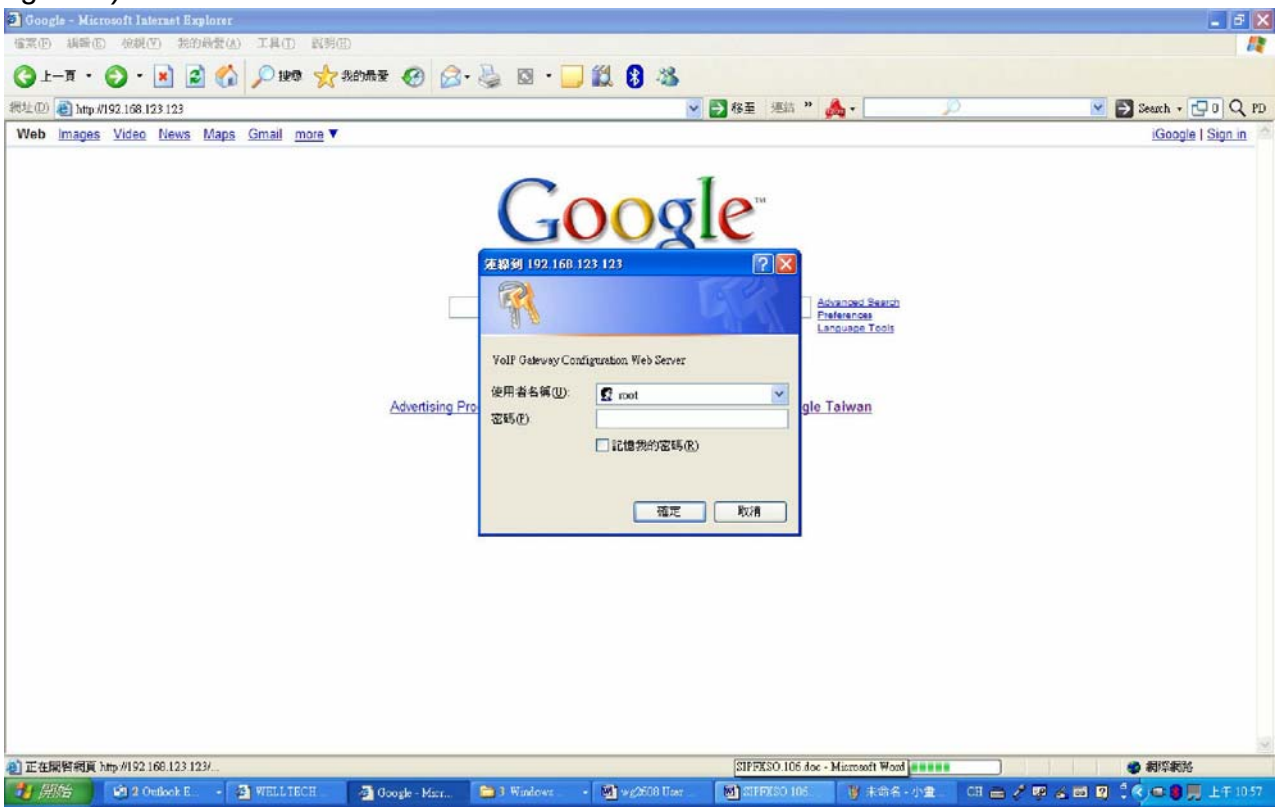
Login to the DW2626 web configuration menu

1. Get an Ethernet Cable to connect your PC and DW2626 with LAN 1 port, then the DHCP server of DW2626 LAN will assign IP address (192.168.123.1) for your PC.
2. Open your WEB browser and key in the IP address of the gateway (http://192.168.123.123) in the Address box (see figure 1).

Google
Google Search
I'm Feeling Lucky
Advertising Programs - Business Solutions - About Google - Go to Google Taiwan
Make Google Your Homepage!

(Figure 1)

3. You will see a pop-up window requesting username and password before you can login to the web configuration menu. Username is “root” while password is blank “ “ (see figure 2).



(Figure 2)

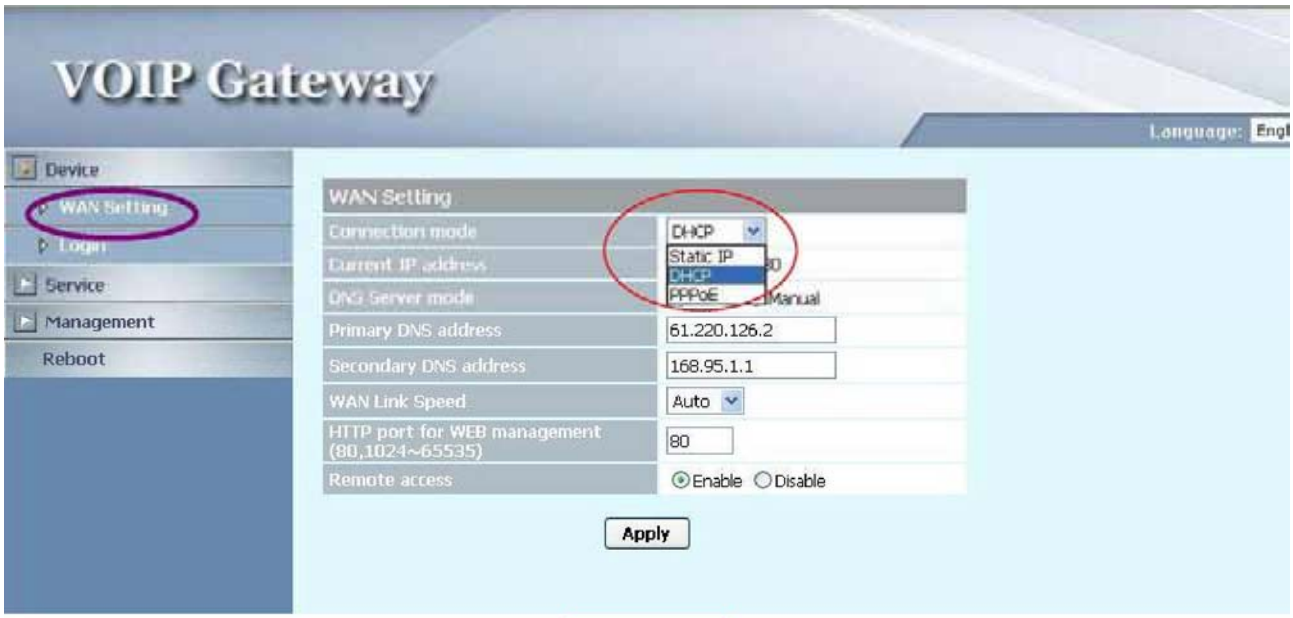
3. You will enter the main page of the web configuration interface after you keyed in the username and password correctly (see figure 3).

(Figure 3)

Device

The following instructions will explain the configurations for setting up the WAN port of the DW2626. There are in total three methods of connections: Static IP, DHCP and PPPoE. (see figure 4)

Device_WAN Setting



(Figure 4)

The table shown below describes the configuration items for 3 connection types of network (Static IP, DHCP and PPPoE).

Device WAN Setting

Item	Description	Static IP	DHCP	PPPoE
Connected mode	Select the connection method for the WAN port of the DW2626, you can choose the following: • Static IP • DHCP • PPPoE	V	V	V
Current IP Address	Show current IP address	V	V	V
DNS server mode	Select the DNS behavior, you can choose the following: • Auto • Manual “DNS auto” will retrieve the DNS information sent from the DHCP server. “Manual” will look at the specified Primary and Secondary DNS address.	V	V	V
Primary DNS address	Specify the address of the Primary DNS.	V	V	V
Secondary DNS address	Specify the address of the Secondary DNS.	V	V	V
WAN Link Speed	Select the connection speed for the WAN port of the DW2626, you can choose the following: • Auto • 100M • 10M	V	V	V
HTTP port for WEB management	Specify the port number for WEB management, the allowable range is 80,1024~65535.	V	V	V
IP address	Specify the IP address.	V		
Subnet mask	Specify the subnet mask.	V		

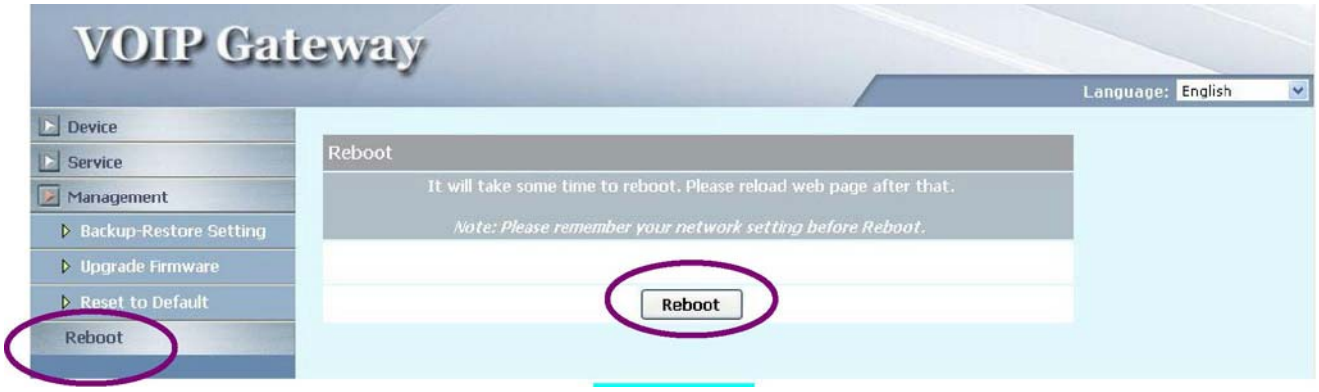
Device WAN Setting

Item	Description	Static IP	DHCP	PPPoE
Default gateway	Specify the IP address of the default gateway.	V		
Remote access restriction	Restricts/Blocks users connecting to the WAN port's IP remotely, you can Enable/Disable this option.	V	V	V
PPPoE userID	Specify the username of the PPPoE account			V
PPPoE password	Specify the password associated to the PPPoE account above.			V
Reboot after remote host disconnection	When the remote host (PPPoE) fails, the gateway will retry 3 times to reconnect, if there is no reply from the remote host within 3 tries, then the gateway will reboot. You can Enable/Disable this option.			V
MTU	It is used to specified the max transmission unit when using PPPoE. The default value is 1492 and it could be smaller is you are encounter the PPPoE connecting issues.			V

Device_WAN Setting --Static IP

(Figure 5)

1. When you select the “Static IP” mode, please Specify the marked item shown as the figure 5.
2. Press the “Apply” button (at the bottom) after you finish to save changes.



(Figure 6) 3.

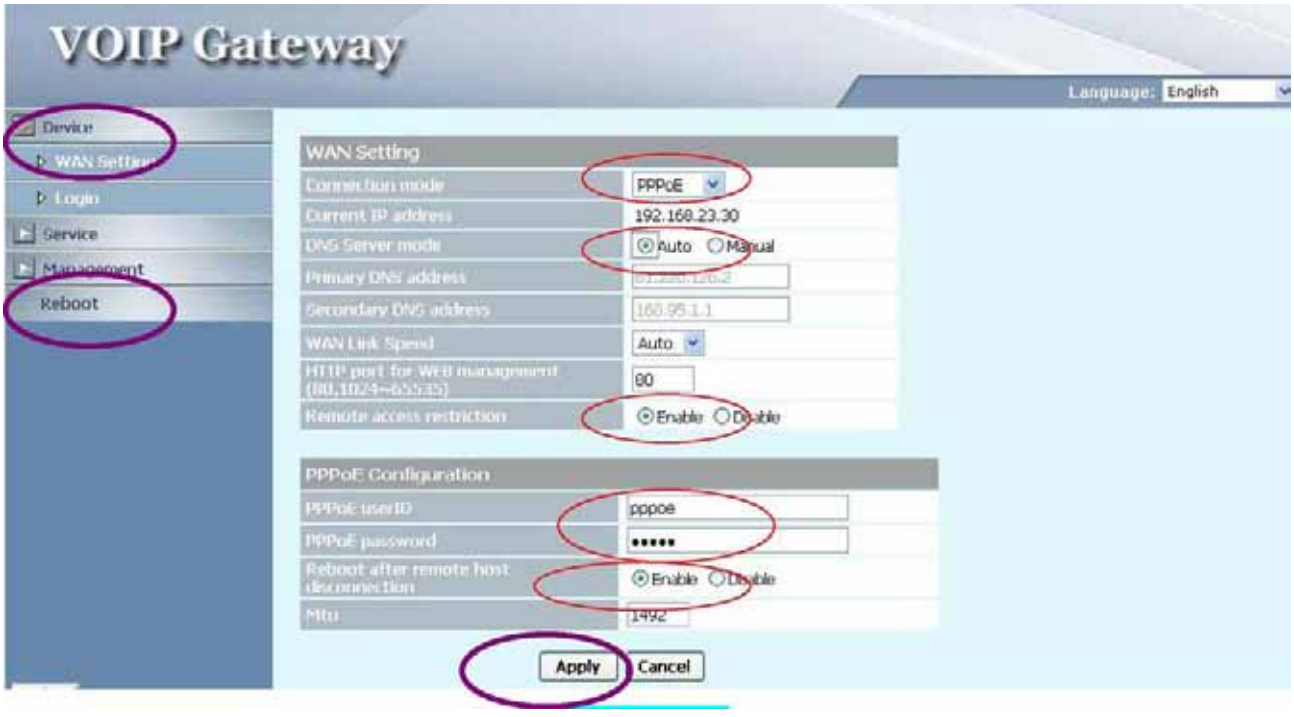
Press the “Reboot” button to apply the changes.(see figure 6)

Device_WAN Setting --DHCP

(Figure 7)

1. If you select the “DHCP” mode, please Specify the marked item shown as the figure 7.
2. Press the “Apply” button (at the bottom) after you finish to save changes.
3. Press the “Reboot” button to apply the changes.

Device_WAN Setting --PPPoE



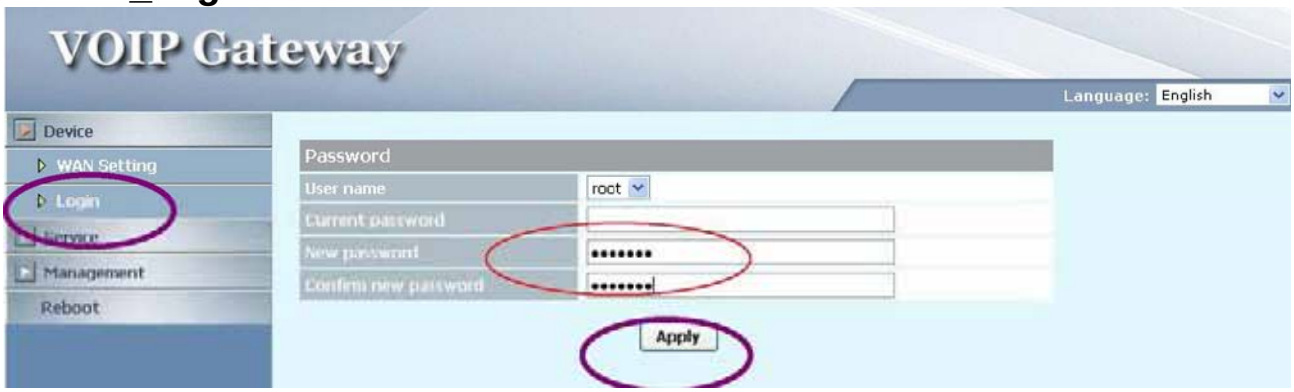
(Figure 8)

1. When you select the “PPPoE” mode, please Specify the marked item shown as the figure 8

.

2. Press the “Apply” button (at the bottom) after you finish to save changes.
3. Press the “CANCEL” button (next to the Apply button) to clear the values in the page.
4. Press the “Reboot” button to apply the changes.

Device_Login



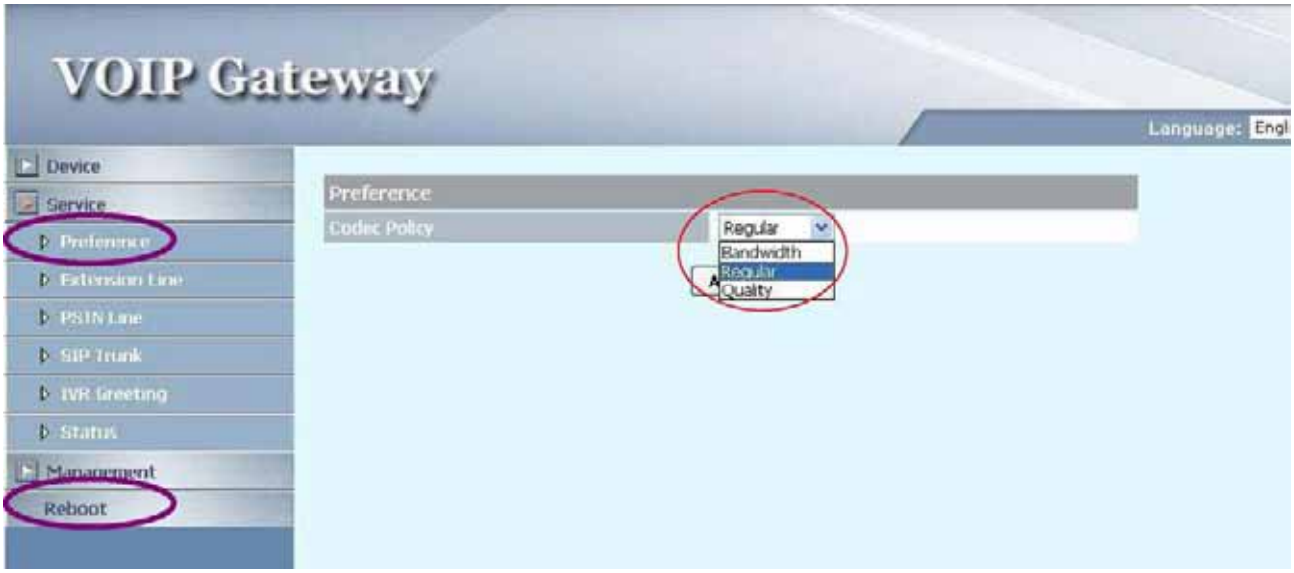
(Figure 9)

1. You can change the login password of DW2626, as the figure 9 shown. If you set the new password, please remember it and use the new password when the device is rebooted.
2. Press the “Apply” button (at the bottom) after you finish to save changes.
3. Press the “Reboot” button to apply the changes.

Service

To initial the VoIP service, you will need a SIP account provided by the SIP Proxy you are registered with. To configure the relevant SIP settings, please refer to the instructions step by step.

Service_Preference

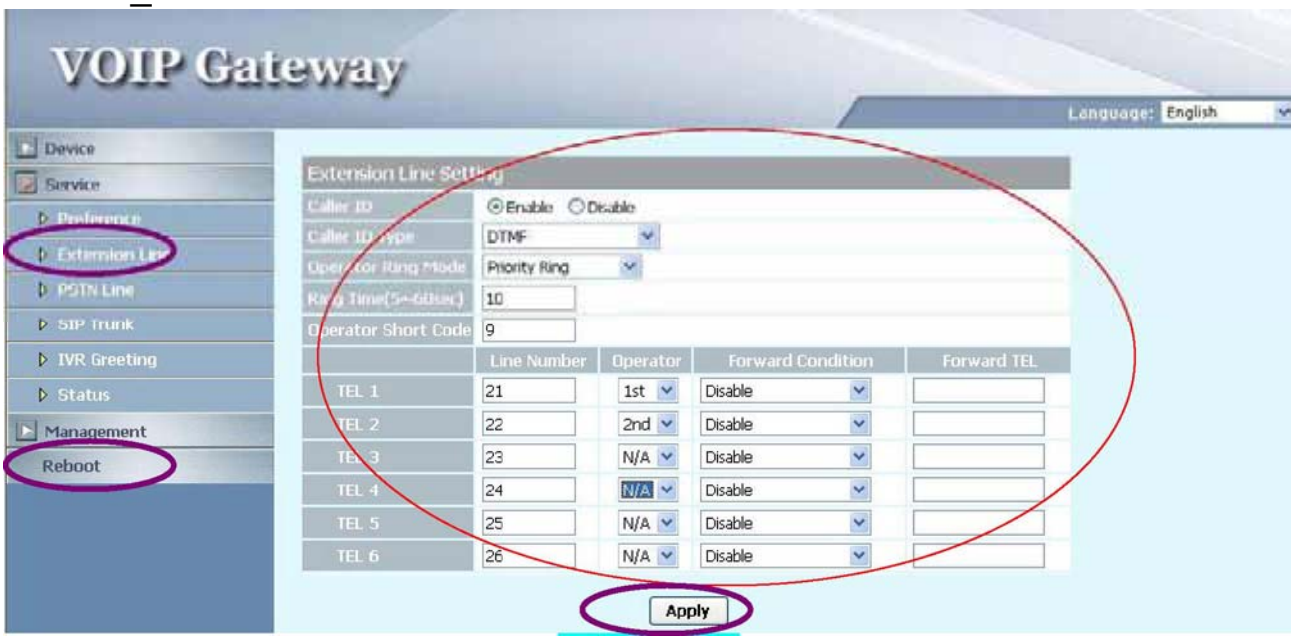


(Figure 10)

1. In the “Service_Preference” section (see figure 10), you can specify the “Codec Policy” by your requirement of environment. The priority of codecs for the three types are shown below:
   > Bandwidth : If your Internet Connection had very limited bandwidth, please select bandwidth priority. The codec priority will be G.723, G.729 and G.711.
   > Regular : For most of case or unknown environment, please select Regular. The codec priority will be G729, G.723 and G.711.
   > Quality : If your network is only running on the LAN environment or have no any concerns of bandwidth, please select Quality. The codec priority will be G.711, G.729 and G.723

   The default setting is “Regular”.
2. Press the **“Apply”** button (at the bottom) after you finish to save changes.
3. Press the **“Reboot”** button to apply the changes.

Service_Extension Line



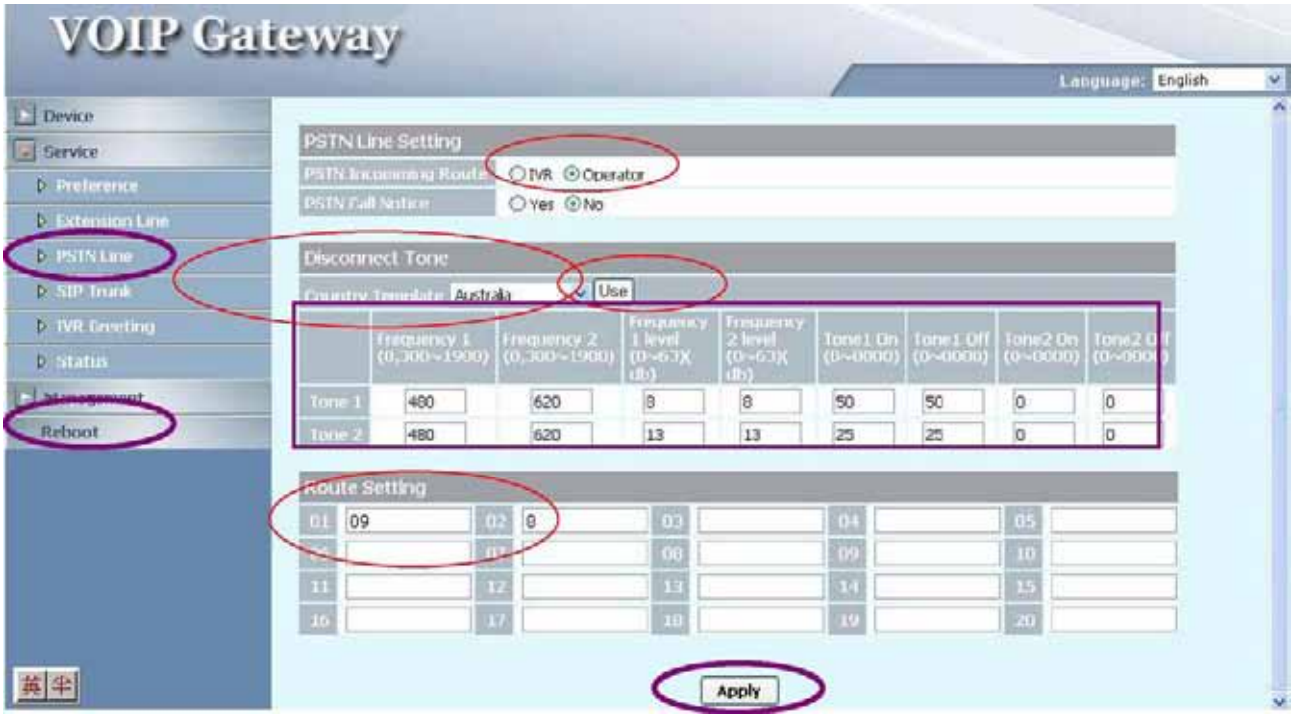
(Figure 11) In the “Service_Extension Line Setting” section (see figure 11), you can set the operator priority of the extensions for incoming call. The detail instruction explained below:

Caller ID	Enable or Disable the Caller ID Sending to Telephone Set. You have to use Caller ID phone in order to display the caller information. If unsure, please set to Disable.
Caller ID Type	Specify the caller ID Type of your phone set : DTMF, FSK(Bellcore), ETSI(Before Ring) or ETSI(Between Ring)
Operator Ring Mode	Specify the Operator Ring Mode: 1. “Priority Ring” : The operator will be hunted based on the priority defined in extension. If the higher priority’s extension is busy, the call will automatically hunt to second one and so on. 2. Simultaneous Ring: Parallel Ring all priority of operators’ extension, exclude those extension’s operator set to ”NA”.

Ring Time	Specify ring time : 5~60 sec. It is used for priority hunting which define how long the system will think the ringing operator is not able to take the call and hunt to next. The default value is 20 to 40 seconds.
Operator Short Code	Specify the short code of Operator (eg. 9 or 0). The default value is 9.
TEL 1 ~TEL6	
Line Number	Specify the extension number
Operator	Specify the Operator priority of incoming call; you can set the priority from 1st to 6th or “NA” for extension. TEL1 and TEL2 are the default operators.
Forward Condition	Specify the extensions forward condition, you can choose the following: > Disable > UNCONDITIONAL > BUSY > NO ANSWER > BUSY + NO ANSWER
Forward TEL	Specify the forward extension number

1. Press the “Apply” button (at the bottom) after you finish to save changes.
2. Press the “Reboot” button to apply the changes.

Service_PSTN Line



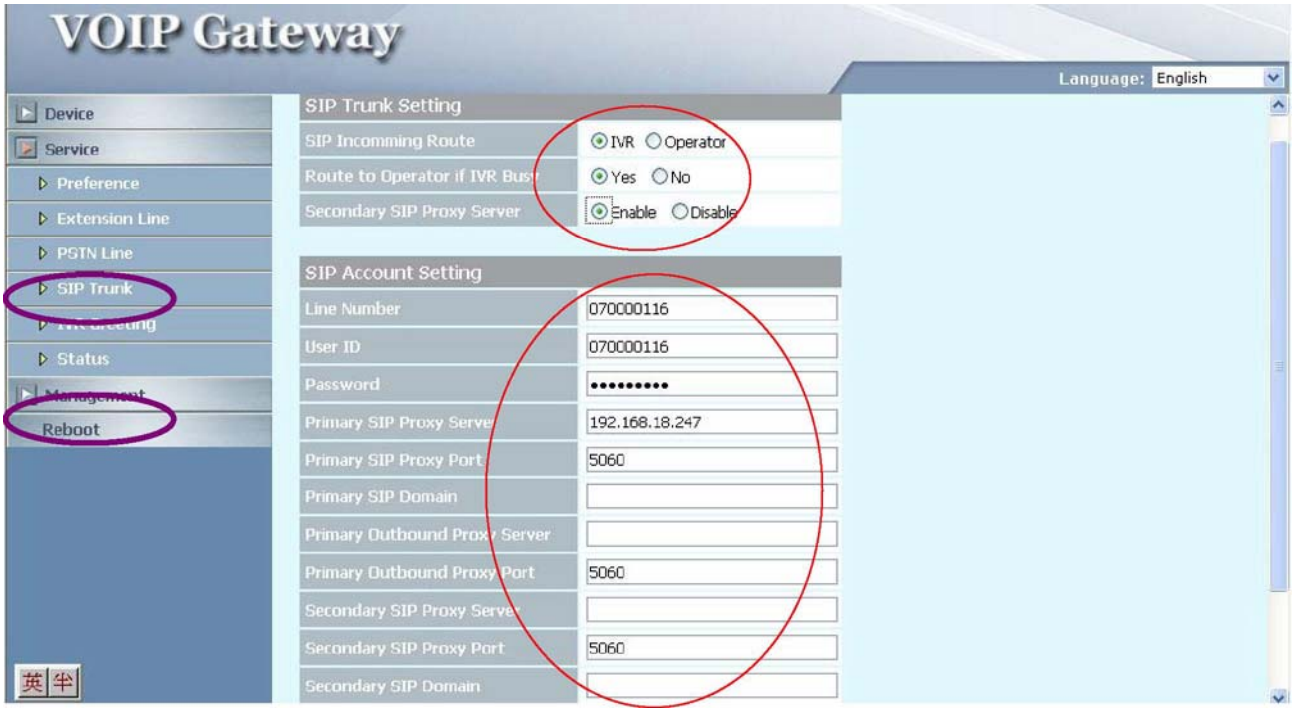
(Figure 12)

In the “Service_PSTN Line ” section (see figure 12), you can define the routing rule of incoming/outgoing PSTN call, the detail information please refer to the table below.

PSTN Line Setting	
PSTN incoming Route	Specify the PSTN incoming call routing rule, via IVR or direct to operator.
PSTN Call Notice	If you Select “Yes”, system will send a PSTN call notice tone before dialing when the SIP trunk (Ethernet) is fail. Select “No”, this feature will be disabled.
Disconnect Tone	
Country Template	Specify the location of DW2626, Click the “Use” icon when you select the correct country. System will use the selected country’s PSTN tone to become the active value. You can modify it if necessary.
Route Setting	Those prefix defined here, will be route to PSTN no matter VOIP is active or not.

1. Press the “Apply” button (at the bottom) after you finish to save changes.
2. Press the “Reboot” button to apply the changes.

Service_SIP Trunk



(Figure 13)

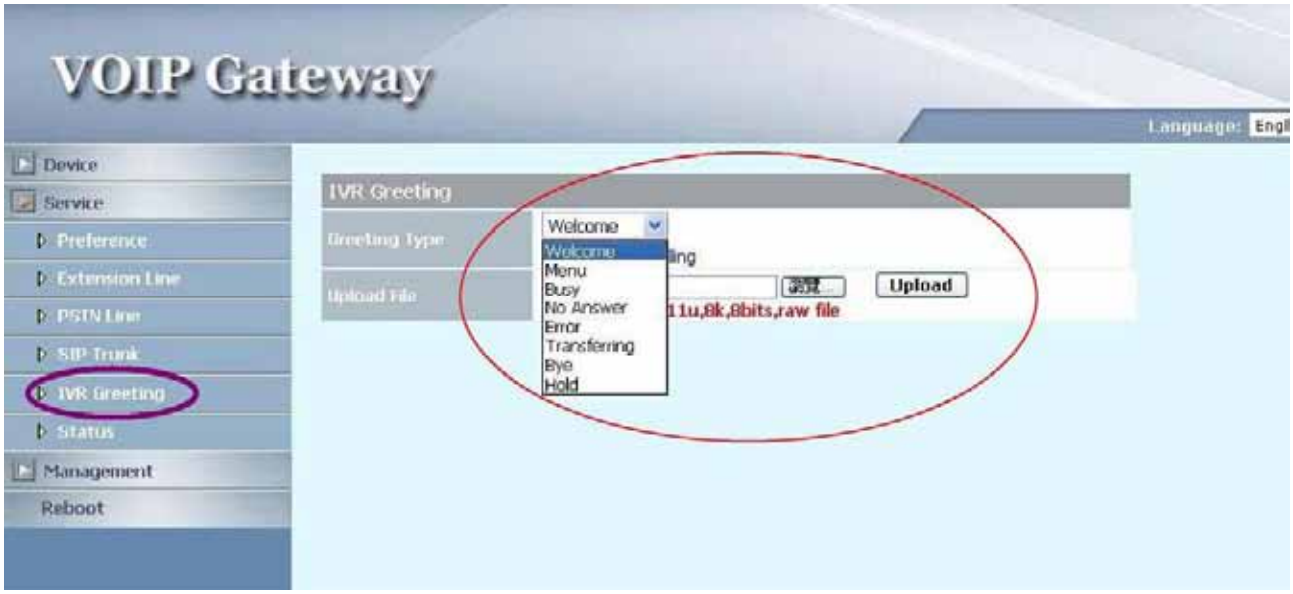
In the “Service_SIP Trunk section (see figure 13), you have to set the SIP account for VOIP service.

SIP Trunk Setting	
SIP incoming Route	Specify the SIP incoming call routing rule, via IVR or direct to operator.
Route to Operator if IVR busy	If you select IVR mode for SIP incoming call, system will route the call to operator automatically when IVR is busy. Set “Yes” to enable. Set “No” to disable.
Secondary SIP Proxy Server	Enable/Disable Secondary SIP Proxy Server
SIP Account Setting	
Line Number	Specify the SIP line number (This item is essential for VOIP service)
User ID	Specify SIP account

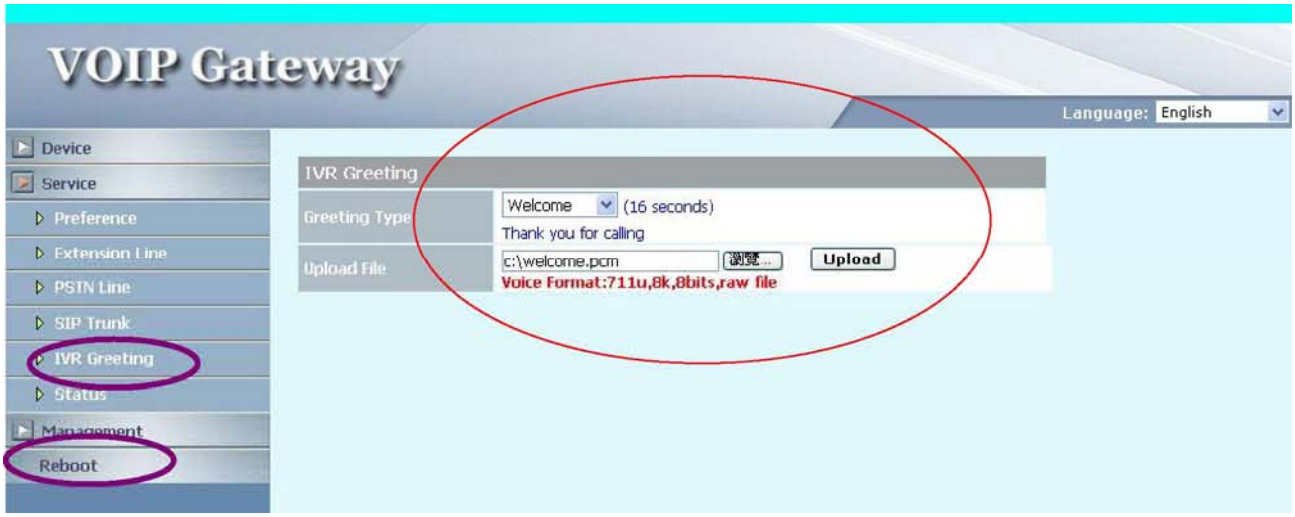
	(This item is essential for VOIP service)
Password	Set password of SIP account (This item is essential for VOIP service)
Primary SIP Proxy Server	Specify the IP address (This item is essential for VOIP service)
Primary SIP Proxy Port	Specify the port number, the default port number is 5060 (This item is essential for VOIP service)
Primary SIP Domain	Specify the Domain name
Primary Outbound Proxy Server	Specify the IP address
Primary Outbound Proxy Port	Specify the port number, the default port number is 5060
Secondary SIP Proxy Server	If you “Enable” the Secondary SIP Proxy Server, please set the IP address
Secondary SIP Proxy Port	Specify the port number, the default port number is 5060
Secondary SIP Domain	Specify the secondary SIP Domain name
Secondary Outbound Proxy Server	Specify the IP address of Secondary Outbound Proxy Server
Secondary Outbound Proxy Port	Specify the port number, the default port number is 5060

1. Press the “Apply” button (at the bottom) after you finish to save changes.
2. Press the “Reboot” button to apply the changes.

IVR Greeting



(Figure 14)



(Figure 15)

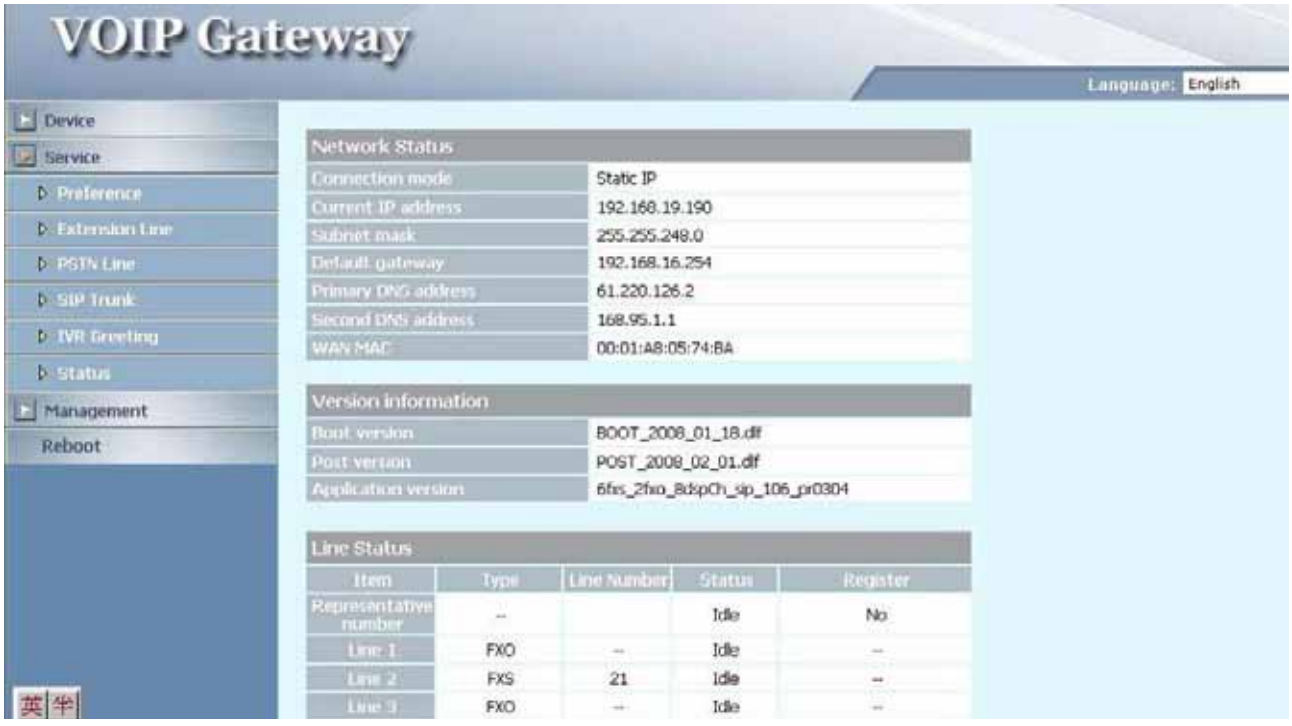
In the “Service_IVR Greeting ” section (see figure 14,15), you can customize the IVR greeting prompts by uploading those files into DW 2626.

Greeting Type	The default contents of greeting are shown below: 1. Welcome : Thank you for calling 2. Menu: Please dial extension number or 9 for operator 3. Busy: The extension you dialed is busy 4. No Answer: The extension you

	dialed is no answer 5. Error: Sorry, this extension number does not exist 6. Transferring: Please wait 7. Bye: Please try later, thank you 8. Hold:(Play Music) If you want to change the contents, please be sure the voice format is 711u,8k,8bits,raw file.
Upload file	If you want to upload the greeting file, please select the greeting type, specify the file path and file name, and then click the “Upload” icon.

1. Press the “Reboot” button to apply the changes.

Service_Status



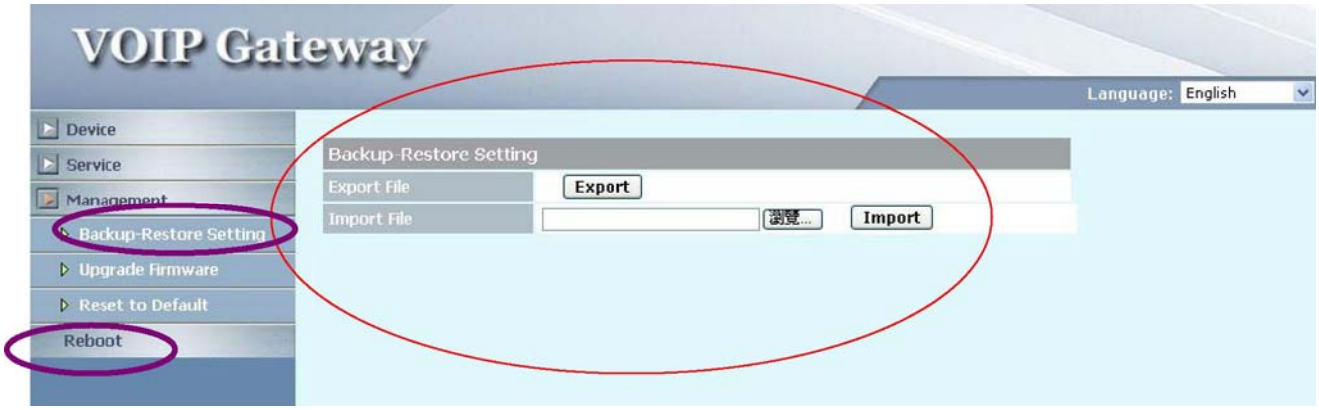
(Figure 16)

In the “Service_Status” section (see figure 16), Display the status of Network, S/W version and line.

Network Status

Connection mode	Displays the current connection mode.
Current IP address	Displays the current IP address of the WAN port.
Subnet mask	Displays the current subnet mask's IP.
Default gateway	Displays the current default gateway's IP.
Primary DNS address	Displays the current primary DNS address.
Second DNS address	Displays the current secondary DNS address.
WAN MAC	Displays the MAC address of the WAN port.
Version Information	
Boot version	Displays the current boot version loaded on the DW2626.
Post version	Displays the current post version loaded on the DW2626.
Application version	Displays the current application version loaded on the DW2626.
Line Status	
Item	Displays the corresponding port number.
Type	Displays the port type (FXS,FXO)of the corresponding port number.
Line Number	Displays the line number
Status	Displays the status of the port.
Register	Displays the registration status of the corresponding port number.

Management Management_Backup-Restore Setting

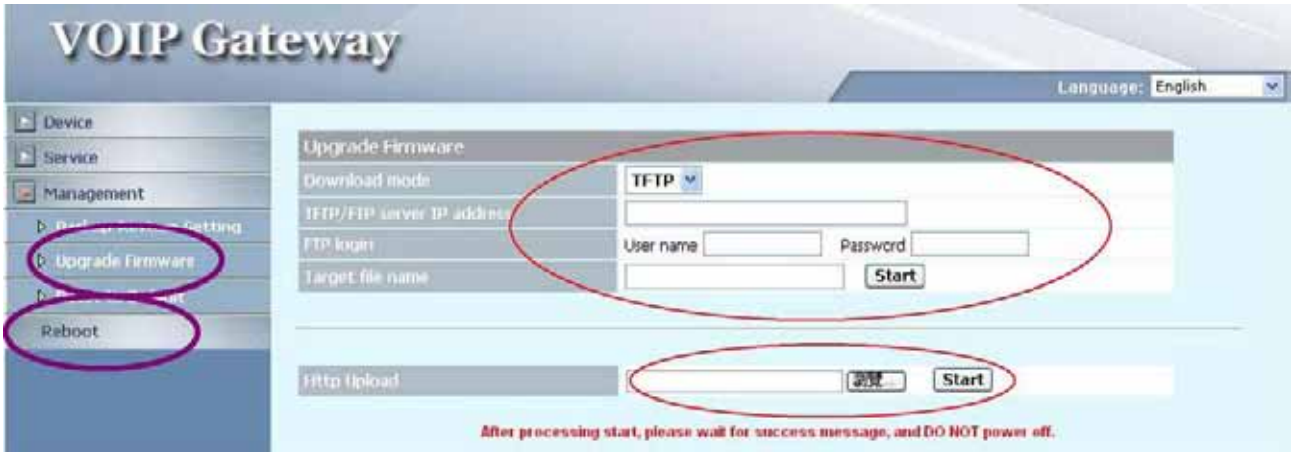


(Figure 17)

Export File	Click the “Export” button to export “user.cfg” data
Import File	Specify the file path and file name to Import the configuration data.

1. After import data, press the “Reboot” button to apply the changes.

Management_Upgrade Firmware



(Figure 18)

Download mode	Select the connection method to update the DW2626’s firmware, you can choose the following:

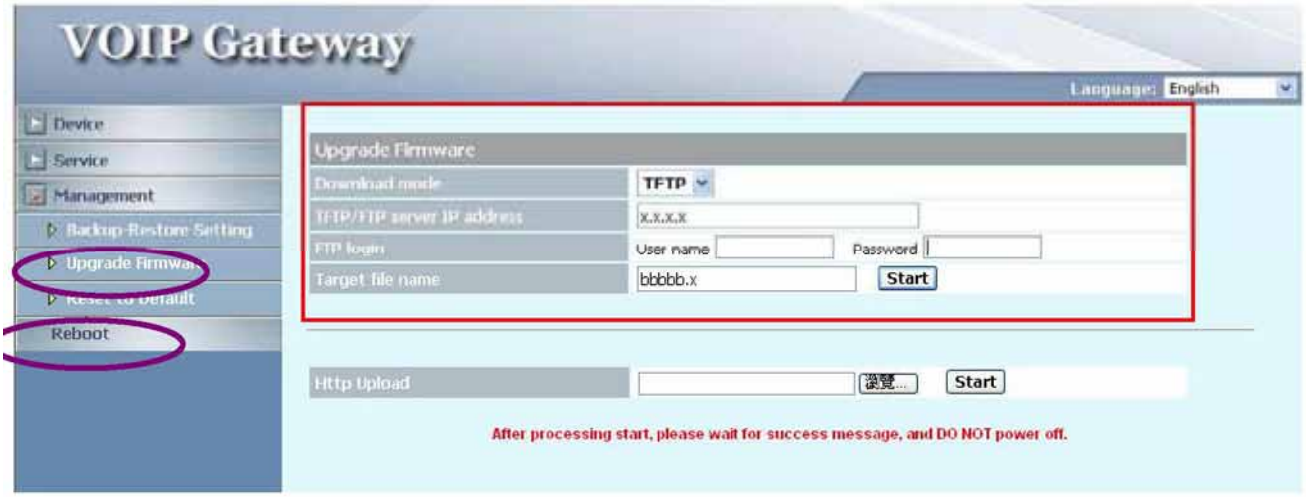
	• TFTP • FTP
TFTP/FTP server IP address	Specify the TFTP/FTP server's IP address.
FTP login	If you select FTP download mode, please specify the login user name/password for the FTP server.
Target file name	Specify the target file name for the firmware.
Http Upload	Specify the location of the firmware for uploading through Http.

Updating the firmware by FTP

(Figure 19)

1. Under Management => Upgrade firmware (see figure 19) Select FTP mode in the drop down list.
2. Key in the IP address, login name, password of your FTP server and specify the correct filename of the firmware.
3. Press the Start button (next to the Target file name text box) to execute the upgrade process.
4. Please wait while the device updates itself with the firmware.
5. After the update process is finish, you will be taken to a web page indicating that it was successful.
6. Press the "Reboot" button to apply the changes.

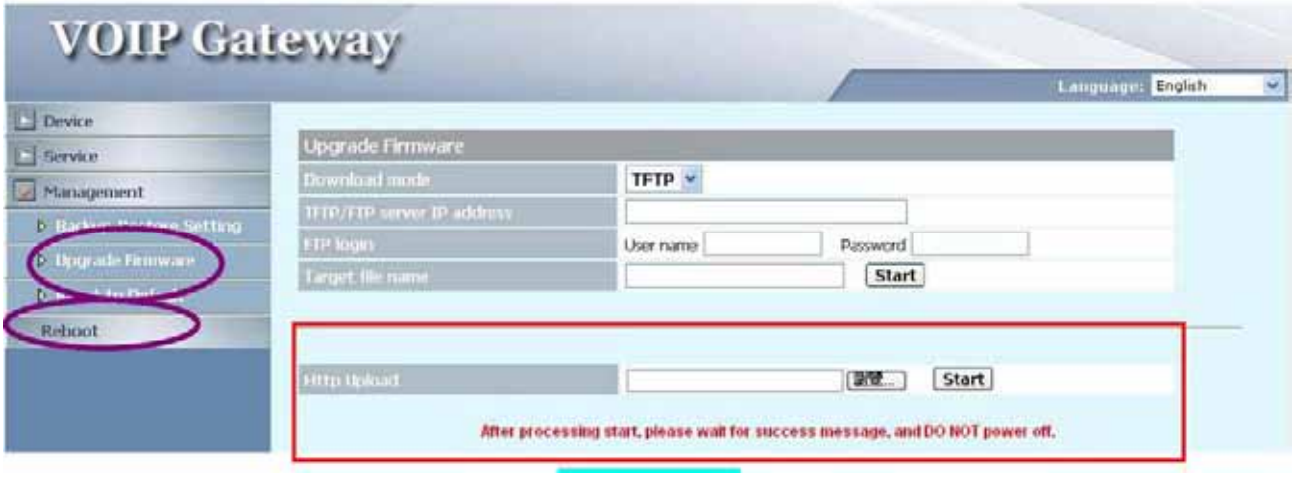
Updating the firmware by TFTP



(Figure 20)

1. First, download the TFTP program. Unzip the TFTP to a directory that you desire in your hard drive and execute the TFTP program. Make sure that the TFTP program points to the directory of where your firmware is stored. Now, leave the TFTP program running and switch back to the DW2626 web configuration interface.
2. Under Management => Upgrade firmware (see figure 20) select TFTP mode in the drop down list.
3. Key in the IP address of the TFTP server and specify the correct filename of the firmware.
4. Press the Start button (next to the Target file name text box) to execute the upgrade process.
5. Please wait while the device updates itself with the firmware.
6. After the update process is finish, you will be taken to a web page indicating that it was successful (see figure below).
7. Press the “Reboot” button to apply the changes.

Updating the firmware by HTTP



1. Under Management => Upgrade firmware web menu (see figure 21), specify the location of the firmware by clicking the Browse button next to the Http Upload text box.
2. You will be prompted with a window requesting the location of the firmware.
3. Locate the firmware that is stored in your hard drive.
4. Once located, click the Open button.
5. Back in the web configuration menu, press the Start button (next to the Http Upload's browse button) to execute the upgrade process.
6. Please wait while the device updates itself with the firmware.
7. After the update process is finish, you will be taken to a web page indicating that it was successful.

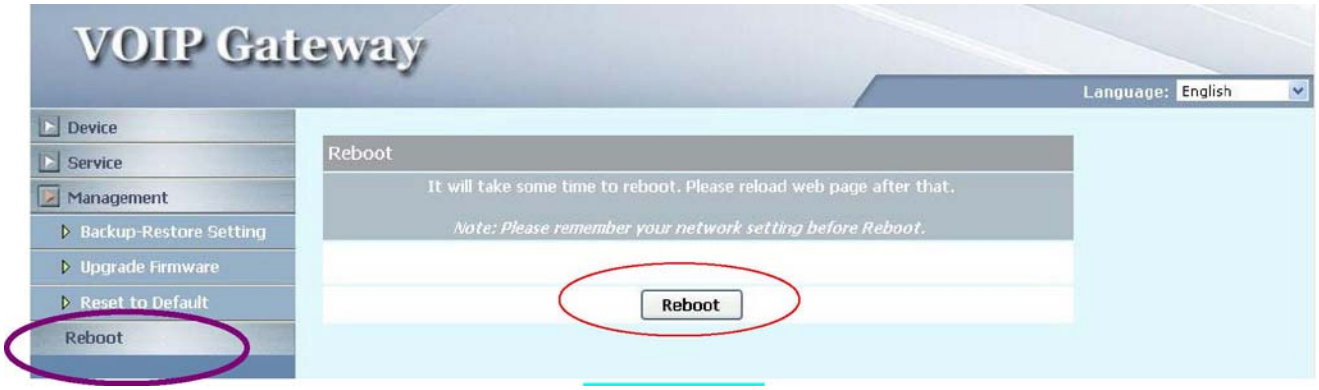
Note: For consistency, it is recommended to reload default setting every time you update the firmware on the DW2626. However, you will lose all the settings configured on the DW2626 except Network configuration. For more details on reload default setting, please refer to the next page below.

Management_Reset to Default

(Figure 22)

Users can restore back to factory default settings using this feature (see figure 22). The password of the account and the network configurations are the things that will not be changed when this feature is executed.

Rebooting the system



(Figure 23)

Executing this function will reboot the whole system, when configuration changes are made to the device, it needs to be rebooted for the changes to take effect (see figure 23).